



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D5106-1

Job Sheet 169932



Part No: D5106-1

Job Qty: 20 ea

Part Name: Bracket



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 1/3/18

Job Tracking No:

Created By: Mario Poulin

Due Date: 1/10/18

Description:

Type: SOLD

Note: DWG REV A IPP REV A RQ VERIFIED BY DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	20 Ea	1/8/18	1/8/18	0.00	0.00	Start Up Machining-3		
100	Bandsaw	20 pcs	1/8/18	1/8/18	0.00	2.90	Bandsaw1		
110	CNC Vertical Machining	20 pcs	1/9/18	1/9/18	0.09	27.03	HAAS1-4		
120	QC	20 pcs	1/9/18	1/9/18	0.00	0.00	QC8 Machining-3		
122	Mill Conv	20 pcs	1/10/18	1/10/18	0.00	3.97	Mill Conv 1		
130	QC	20 pcs	1/10/18	1/10/18	0.00	0.00	QC8		
140	Packaging	20 pcs	1/10/18	1/10/18	0.00	0.00	Packaging3-2		
150	QC21-SA	20 Ea	1/10/18	1/10/18	0.00	0.00	QC21		

Part Op 100 - Cut blank to 2.63" long

Descriptions: 110 - 1-MILL as per folio FB332&dwg.

122 - Drill hole for lanyard as per dwg.

JAN 26 2018

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M303B2.000X1.750	4	10	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Upper Rail	0.780Inches $\pm$ 0.010	0.790 0.770		
2	Upper Rail	0.490Inches $\pm$ 0.030	0.520 0.460		
3	Upper Rail	0.250Inches $\pm$ 0.030	0.280 0.220		
4	Upper Rail	45.000Degrees $\pm$ 0.500	45.500 44.500	Angle	
5	Upper Rail	0.780Inches $\pm$ 0.010	0.790 0.770		
6	Upper Rail	0.575Inches $\pm$ 0.010	0.585 0.565		
7	Upper Rail	1.150Inches $\pm$ 0.010	1.160 1.140		
8	Upper Rail	0.300Inches $\pm$ 0.010	0.310 0.290		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Used: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		Dart Aerospace Ltd. 1270 Aberdeen Street Hurlerbury, ON K64 1K7 CANADA TEL: 1 613 632-5280 Email: sales@dartaero.com www.dartaerospace.com					
Date : _____		Step #: _____		Start up Operation 01/21/18 Job No: 169932 Engineering ☐ Quality ☐ Other ☐ ARB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval					
Description Work Order Deviation 									
Root Cause <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="width:50%; vertical-align: top;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> </tr> </table>		Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="width:50%; vertical-align: top;"> Te ☐ Se ☐ BC ☐ Br ☐ In ☐ Co ☐ Co ☐ Cu ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> </tr> </table>		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Te ☐ Se ☐ BC ☐ Br ☐ In ☐ Co ☐ Co ☐ Cu ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Bracket PART NO: D5106-1 Original Serial #: S034039 Revision: Operation: Change No: ☐ Fit/Function ☐ Misaligned/off center	
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9	Upper Rail	2.180Inches ± 0.030	2.210 2.150	
10	Upper Rail	0.257Inches $+ 0.006$ $- 0.001$	0.263 0.256	Diameter
11	Upper Rail	0.750Inches ± 0.030	0.780 0.720	
12	Upper Rail	0.070Inches ± 0.030	0.100 0.040	
13	Upper Rail	30.000Degrees ± 0.500	30.500 29.500	Angle
14	Upper Rail	0.380Inches ± 0.030	0.410 0.350	
15	Upper Rail	0.200Inches ± 0.010	0.210 0.190	
16	Upper Rail	0.375Inches ± 0.010	0.385 0.365	
17	Upper Rail	1.230Inches ± 0.030	1.260 1.200	
18	Upper Rail	0.230Inches ± 0.030	0.260 0.200	
19	Upper Rail	1.500Inches ± 0.030	1.530 1.470	
20	Upper Rail	1.750Inches ± 0.030	1.780 1.720	
21	Upper Rail	0.750Inches ± 0.030	0.780 0.720	
22	Upper Rail	0.257Inches $+ 0.006$ $- 0.001$	0.263 0.256	Diameter
23	Upper Rail	0.625Inches $+ 0.008$ $- 0.001$	0.633 0.624	Diameter
24	Upper Rail	0.200Inches ± 0.100	0.300 0.100	
25	Upper Rail	0.700Inches ± 0.100	0.800 0.600	
26	Upper Rail	0.129Inches $+ 0.005$ $- 0.001$	0.134 0.128	Diameter

Plex 1/3/18 1:44 PM dart.poulin.mario

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Used: _____ Date: _____

Work Order update only ☐

Work Order: <u>169 932</u> Part No. <u>05106-1</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table border="0"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☒</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																							
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Date: <u>18-01-24</u>		Step #: <u>122</u>		QTY Effective: <u>1</u>			MRB (QSI042) Approval																																																																								
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DART AEROSPACE LTD		Work Order:	
Description: Upper Rail		Part Number:	D5106-1
Inspection Dwg: D5106 Rev: A		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.780	+/-0.010	0.780	/			
0.49	+/-0.030	0.488	/			
0.25 x 45°	+/-0.030 x +/-0.5°	0.25x45	/			
0.780	+/-0.010	0.780	/			
0.575	+/-0.010	0.575	/			
1.150	+/-0.010	1.150	/			
0.300	+/-0.010	0.300	/			
2.18	+/-0.030	2.183	/			
Ø0.257	+0.006/-0.001	0.258	/			
0.75	+/-0.030	0.75	/			
0.07 x 30°	+/-0.030 x +/-0.5°	0.08x30°	/			
0.38	+/-0.030	0.374	/			
0.200	+/-0.010	0.200	/			
0.375	+/-0.010	0.380	/			
1.23	+/-0.030	1.228	/			
0.23	+/-0.030	0.232	/			
1.50	+/-0.030	1.503	/			
1.75	+/-0.030	1.754	/			
0.75	+/-0.030	0.752	/			
Ø0.257	+0.006/-0.001	0.258	/			
Ø0.625	+0.008/-0.001	0.624	/			
0.2	+/-0.100	0.201	/			
0.7	+/-0.100	0.700	/			
Ø0.129	+0.005/-0.001	0.130	/			

Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>	Preliminary Approval:	
Date: 18/01/24	Date: 18-1-23	Date:	

Rev	Date	Change	Revised by	Approved
A	14.08.27	New Issue	KJ	<i>[Signature]</i>